



# Te Tārere

**Te kaupapa:** Te Ine i te Wā me te Kauwhata Rārangi

**Ngā whenu:** Te Ine, Te Tauanga: Taumata 3–4

## Hei whakamārama

He tauira ngohe tēnei, hei aromatawai i te mōhio o te ākonga ki te ine i te wā me te kauwhata rārangi. Mā te āta mātakitaki me te āta whakarongo a te pouako ki te mahi a te ākonga, e mōhiotia ai te taumata o te ākonga, ngā wāhi e pakari ana, me ngā wāhi hei whakapakari ake.

I ētahi wā, mā te whakawhitiwhiti kōrero, mā te paku whakamārama rānei a te pouako, e kite ai te ākonga i te rautaki, i te huarahi rānei hei whakaoti i te ngohe.

E tika ana kia taunga te ākonga ki tēnei mea te whakaoti rapanga, te wetewete i ngā kōrero me ngā tohutohu, te āta whakaaro i te rautaki e hāngai ana, me te tūhonohono anō i ngā maramara mātauranga kei roto i tōna hinengaro. Koirā te īhua o tēnei ngohe aromatawai.

Me tuku kia mahia tēnei ngohe aromatawai i muri i ngā akoranga e hāngai ana ki te ine i te wā me te kauwhata rārangi, kaua e tuku mātao noa iho.

Kei ēnei pukapuka ētahi kōrero hei īwhina i a koe:

- Te Pukapuka Tuarua o Te Poutama Tau **Te Uui Aromatawai**. Ko ngā kōrero whānui e pā ana ki te aromatawai pāngarau.
- **Whanaketanga Pāngarau: He Aratohu mā te Pouako**. Ko ngā kōrero me ētahi tauira ngohe e hāngai ana ki ngā Whanaketanga Pāngarau.
- **Hei Tautoko i te Marautanga Pāngarau: Te Ine**. Ko ngā huatau matua mō tēnei mea te ine.
- **Hei Tautoko i te Marautanga Pāngarau: Te Tauanga**. Ko ngā huatau matua mō tēnei mea te tūhuratanga tauanga.

## Ngā tohutohu

Whakaaturia te kāri, ākene pea me pānui tahi me te ākonga, **kia mārama ai ngā kōrero**.

Hoatu he wā hei whakaoti mā te ākonga i ngā pātai.

Tonoa te ākonga kia whakamārama i āna mahi. Whakaahuangia ‘Te Whārangi Aromatawai mā te Pouako’, hei tuhi māu i āna whakamārama, me ō whakaaro, ō whakataunga aromatawai.

Āta tirohia ngā kōrero kei te whārangi ‘Hei Ārahi i te Aromatawai’ hei īwhina i a koe ki te whakatau i te taumata e hāngai ana ki ngā otinga a te ākonga. Kei tēnei whārangi te ngako o te pāngarau e hāngai ana ki tēnei ngohe, me ngā tauira whakamārama a ngā ākonga.

### **Me mātua mōhio te ākonga**

- ki te whakamahi wāti tū
- ki te whakahaere tūhuratanga hei kohikohi raraunga
- ki te tuhi kauwhata rārangi
- ki te whakamāori kauwhata rārangi

### **Ngā kupu pāngarau e hāngai ana**

āwhata, huapae, kauwhata rārangi, maihea, tuaka pae, tuaka pou, tūtohi, wāti tū

### **Ngā kupu e hāngai ana ki te horopaki**

aho, piu (~nga), tārere

### **Ngā rauemi**

- te kāri ngohe
- he rūri mita
- he aho
- he maihea
- he pepa tukutuku
- he wāti tū

### **Ētahi ngohe whakaako e hāngai ana**

**Hei Tautoko i te Marautanga Pāngarau: Te Ine**

He Ngohe Whakaako:

- Te Ine i te Wā (wh.66)

He Tūhuratanga:

- Te Ine i te Wā (wh.154)

**Hei Tautoko i te Marautanga Pāngarau:**

**Te Tauanga**

He Ngohe Whakaako:

- Kauwhata Rārangi (wh.62)

### **He tauira pātai hei kukume whakaaro**

- Whakamāramahia ngā mahi i oti i a koe i tō hinengaro. He aha tō mahi tuatahi? He aha tō mahi tuaruā?
- He aha koe i whiriwhiri ai i tēnā i te tuatahi?
- E mōhio ana koe ki tētahi atu rautaki e hāngai ana ki tēnā pātai?
- He aha tō mahi hei whiriwhiri i te wā mō te piunga kotahi?
- He aha te mea hei whakaatu ki te tuaka pae o te kauwhata?
- Āta whakaarohia ngā āwhata e tika ana mō ngā tuaka o te kauwhata. Me whakaatu ia mitamano, ia 10 mitamano, ia 100 mitamano rānei mō te roa o te aho?

## Hei Ārahi i te Aromatawai

Te Tārere: Taumata 3-4

Te pātai	Whanaketanga 3e	Whanaketanga 4a	Whanaketanga 4e																									
1. Whakamahia he wāti tū hei ine i te wā e oti ai ngā piunga 10, mai i tētahi taha ki tētahi me te hoki anō ki te taha tuatahi.	E tika ana te whakamahi i te wāti tū. (Whanaketanga 3a) E mōhio ana ki te tikanga mō te whakahaere tūhuratanga, arā, kia pūmau tonu ngā taurangi kāore e inea ana. I konei, kia pūmau tonu te teitei e tukuna ai te tārere kia piu.																											
2. Whakamahia tō inenga i te wā hei whiriwhiri i te wā e oti ai tētahi piunga kotahi.	E mōhio ana, me whakawehi te wā ki te 10, ā, ka whakamahia tōna mōhio ki te pūnaha ngahuru hei whakawehi i te tau ā-ira ki te 10. Hei tauira: (Kaupae 6) $18.30 \div 10 = 1.83$																											
3. Kia pērā anō te mahi hei ine, hei whiriwhiri i te wā o te piunga kotahi, mēnā e 300mm, e 400mm, e 500mm, e 600mm te roa o te aho. Tuhia ki tētahi tūtohi pēnei i tēnei: <table border="1"><thead><tr><th>Te roa o te aho</th><th>Te wā o te piunga kotahi</th></tr></thead><tbody><tr><td>300mm</td><td></td></tr><tr><td>400mm</td><td></td></tr><tr><td>500mm</td><td></td></tr><tr><td>600mm</td><td></td></tr></tbody></table>	Te roa o te aho	Te wā o te piunga kotahi	300mm		400mm		500mm		600mm		E tika ana te whakahaere i te tūhuratanga, te kohikohi i ngā raraunga, me te whiriwhiri i te wā o te piunga kotahi. Hei tauira: <table border="1"><thead><tr><th>Te roa o te aho</th><th>Te wā o ngā piunga 10</th><th>Te wā o te piunga kotahi</th></tr></thead><tbody><tr><td>300mm</td><td>12.67</td><td>1.267</td></tr><tr><td>400mm</td><td>14.55</td><td>1.455</td></tr><tr><td>500mm</td><td>16.40</td><td>1.640</td></tr><tr><td>600mm</td><td>18.30</td><td>1.830</td></tr></tbody></table>	Te roa o te aho	Te wā o ngā piunga 10	Te wā o te piunga kotahi	300mm	12.67	1.267	400mm	14.55	1.455	500mm	16.40	1.640	600mm	18.30	1.830		
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4. Tuhia he kauwhata rārangī hei whakaatu i ngā wā e oti ai te piunga kotahi mēnā e 300mm, e 400mm, e 500mm, e 600mm te roa o te aho.	E tika ana te whakaatu i ngā raraunga ki te kauwhata rārangī, arā: <ul style="list-style-type: none"><li>ka whakaaturia te roa o te aho ki te tuaka pae;</li><li>ka whakaaturia te wā o te piunga kotahi ki te tuaka pou;</li><li>te whiriwhiri i ngā āwhata e iika ana mō ia tuaka.</li></ul>																											
5. He aha ngā kōrero matua e kitea mai ana i te kauwhata?	E tika ana te whakamāori i te kauwhata, me te ūpako mai i ngā kōrero matua. Hei tauira: He tere ake te piu mēnā he poto te aho.	E tika ana te whakamāori i te kauwhata, me te whakamahi rautaki tau hei tautohu i ngā kōrero matua. Hei tauira: Mēnā ka hauruatia te roa o te aho, ka pātata ki te $\frac{2}{3}$ te wā o te piunga. Arā: $300 \rightarrow 1.267$ $600 \rightarrow 1.830$ Ko te 300 te haurua o te 600. Ko te 12 te rua hauroru o te 18.																										
6. Ki tō whakaaro, e hia te wā o te piunga kotahi mō ēnei whāroa o te aho? Whakamāramatia he aha i pēnā ai ô whakaaro:	Ka whakatau tata i te wā, i runga i te whakaaro māmā, kia tau ki raro iho, ki waenganui, ki runga ake rānei i ngā wā i whiriwhiria i te Pātai 3. Hei tauira: <ul style="list-style-type: none"><li>Ko te 350 kei waenganui pū i te 300 me te 400.</li><li>Ko te 1.45 kei waenganui pū i te 1.267 me te 1.640.</li></ul>	Ka whakamahia te ia o te kauwhata, ā, ka tautohu i ngā wā e hāngai ana ki roa o te aho.	Ka whakamahia te whakaaro taurangi hei whiriwhiri i te wā o te piunga. Hei tauira: <table border="1"><thead><tr><th>Te roa o te aho</th><th>Te wā o te piunga kotahi</th></tr></thead><tbody><tr><td>200</td><td></td></tr><tr><td>300</td><td>1.267</td></tr><tr><td>400</td><td>1.455</td></tr><tr><td>500</td><td>1.644</td></tr><tr><td>600</td><td>1.830</td></tr><tr><td>700</td><td></td></tr></tbody></table> <p>la pikinga o te aho mā te 100mm, ka pikī ake te wā o te piu mā te takiwā o te 0.19 hēkona. Nō reira, tangohia te 0.19 i te wā mō te 300mm hei whiriwhiri i te wā mō te 200mm. Arā: <math>1.267 - 0.19 = 1.077</math> hēkona.</p>	Te roa o te aho	Te wā o te piunga kotahi	200		300	1.267	400	1.455	500	1.644	600	1.830	700												
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## Te Whārangi Aromatawai mā te Pouako

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